

# Risk Communication Outrage Factors by Public Health Officials in Ontario During the COVID-19 Pandemic



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## Introduction

- Risk Communication is the transmission of information from health authorities and experts about the hazards vulnerable groups are exposed to [1]
- Effective risk communication helps in the reduction and elimination of pandemics, decreases apprehension and uneasiness among the public, and increases acceptability levels of policies and regulations [1]
- Outrage factors are defined as the emotional components of risk that lead to reactions such as anger and surprise [2]
- Peter Sandman developed a simple equation:

Positive Outrage "Safe"	Negative Outrage "Risky"
Voluntary	Involuntary
Controllable	Uncontrollable
Certainty	Uncertainty
Not Dreaded	Dreaded
Familiar	Exotic
Trust	Mistrust

$$\text{Risk} = \text{Hazard} + \text{Outrage}$$

Hazard: Any factor that might cause injury or damage [3]

- Some examples of outrage factors are listed in Figure 1

Figure 1. Examples of outrage factors according to perceived risk

## Objective

- **Research Question:** In what manner did the risk communication approaches of provincial public health officials address community outrage factors during the COVID pandemic?
- This study aims to examine the ways in which provincial medical officials used risk communication techniques to address outrage factors during the COVID-19 pandemic

## Methods

- This study is a qualitative content analysis of media articles listing information conveyed by public health officials in Ontario from 2020 to 2022. It includes articles from The Globe & Mail, Toronto Star & The Hamilton Spectator
- It utilizes a framework analysis approach which is a form of thematic analysis that follows a structure of extracting themes from the data to form a framework [4]
- A search was conducted using the database Proquest Newspapers which resulted in 2710 relevant articles leading to subset of 618 articles after inclusion and exclusion criteria were applied
- Inclusion: Public health messages that focus on communication from the Medical Officers of Health (MOHs) in Ontario
- Exclusion: Articles with information only on COVID case numbers and statistics regarding deaths; opinion pieces and editorials
- NVivo software was used for categorization and coding purposes

## Results

- Initial results show 'uncertainty' and 'dreaded' appear more often through public health messaging in the media articles while 'familiarity' and 'mistrust' appear least often
- This shows that the public perceive 'uncertainty' and 'dread' to be riskier and are less tolerant about it when compared to 'familiarity'
- A graph showing the frequency of outrage factors is presented in Figure 2

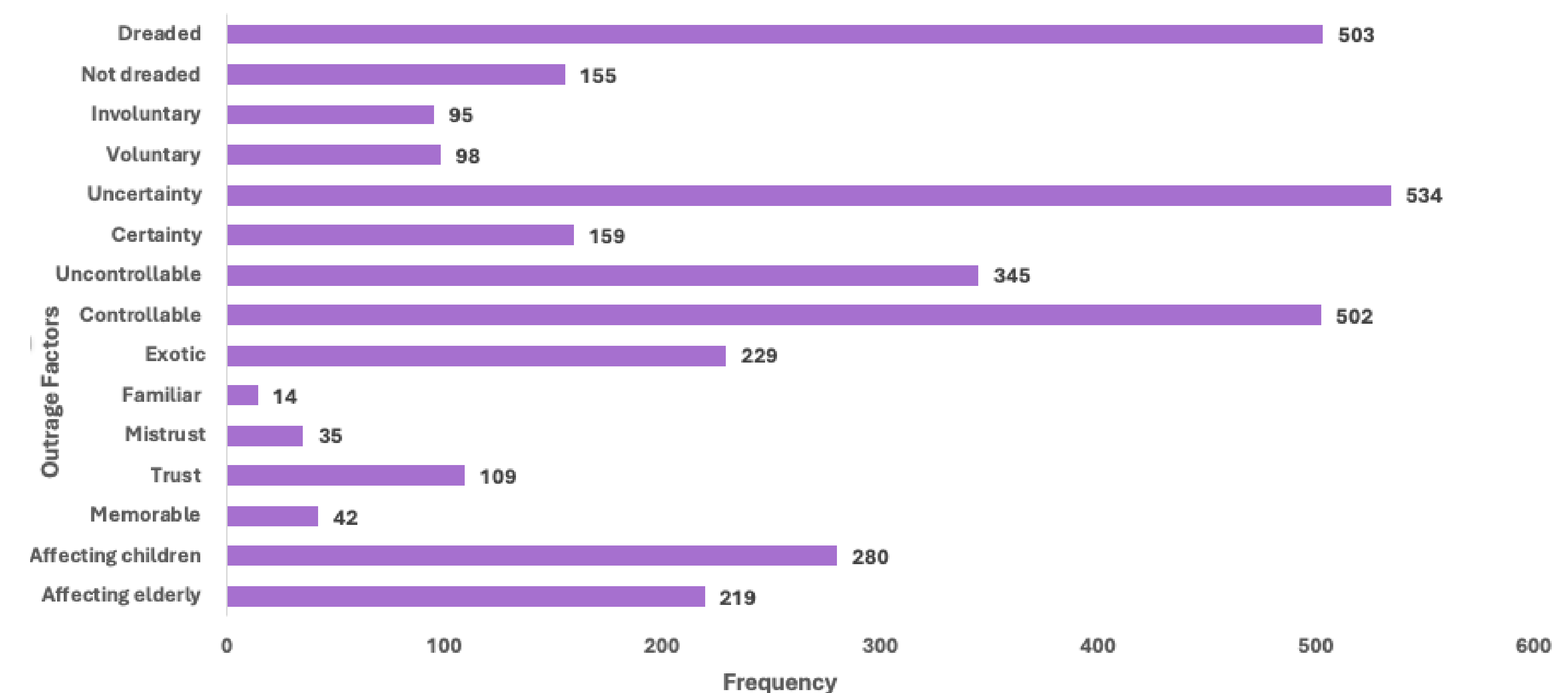


Figure 2. Frequency of positive and negative outrage factors

- The following quote from a media article demonstrates some outrage factors:
- "Ontario's chief medical officer, Dr. Kieran Moore, said Wednesday that changes to masking rules follow "slow and steady" declines in admissions to hospitals and intensive care units, and he is "confident that we can do this safely." "It is now a choice, not a mandate," he told reporters. "I hope that anyone who remains vulnerable will continue to wear their masks" [5]
- 'Voluntary', 'certainty' and 'not dreaded' are some outrage factors that show up above
- Articles were also coded for interventions that were recommended by public health officials
- A word cloud of certain interventions is presented in Figure 3



Figure 3. Word cloud of the top interventions

## Conclusion

- Preliminary results suggest that the dominant outrage factors are 'uncertainty' and 'dread'. They are negative in nature, which means that the public perception of fear was higher during the COVID-19 pandemic